

## Program Development Exercise: Interdisciplinary Center

### Background

You are a life sciences librarian for the Large Research and Teaching University. You have recently been contacted by the University-wide Center for Vertebrate Genomics (CVG). The CVG would like to develop data management training for members of the Center, and they have contacted you for help. This is what you know so far.

### The research team

The Center launched in the fall of 2004, and currently has 85 faculty and associate members. Participating faculty are encouraged to involve members of the lab in CVG activities, so the potential audience numbers are quite high. CVG members are encouraged to collaborate with one another, so graduate students work on their own projects but also work together in cross-lab teams for some collaborative aspects of those projects (i.e., sample processing, data analysis).

### Research summary

The CVG is a multidisciplinary group that brings together vertebrate geneticists from across campus. Members come from many departments, including Animal Health, Molecular Biology and Genetics, Nutritional Sciences, Biomedical Science, Food Science, and Ecology and Evolutionary Biology. The CVG has several goals related to the enhancement of research and education in vertebrate genetics and functional genomics. These include:

- Organizing activities to encourage interactions amongst vertebrate geneticists across campus.
- Contributing to undergraduate and graduate education, postdoctoral training and recruiting. The Center is a recipient of an NIH training grant in vertebrate developmental genomics.

To accomplish its educational goals, the Center supports various activities, such as training fellowships for graduate students and postdoctoral researchers; teaching opportunities in Genomics; seed funding for research projects; travel to meetings and conferences; the monthly Vertebrate Genomics club in which member labs present research over lunch; subsidy for next generation sequencing; and an annual symposium.

### Potential areas of need

The Center wasn't very precise about what they want you to develop, but they think that some sort of instruction about data management would be useful for the members. Data sharing attitudes vary widely across the members of the CVG, and are somewhat dependent on the research field or home department of respective members. In addition to the Center's NIH training grant, many members receive NIH funding, and are required to deposit publications into PubMed Central. NSF funding is not as common among members, and many are unfamiliar with (and uninterested in) the NSF's data management plan requirements. One problem that they face is an assumption by many of the faculty that the Center will store the data for extended periods of time after next generation sequencing. They have been approached 2 and 3 years after a sequencing project, with a request to provide the data again, when they dispose of it after 6 months. Other issues include the challenge of storing and annotating the computational workflow used in the analysis stages of genomic projects.



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### The types of files that this center generates

The center generates sequencing data (proprietary file formats from Perkin Elmer and Qiagen instruments, text files), R scripts used for statistical analysis of sequence data; perl scripts for bioinformatics tasks, analysis workflows for high throughput sequencing analysis and annotation, database files in MS Access.



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